



The Republic of the Union of Myanmar
Ministry of Transport
Department of Meteorology and Hydrology
Review of the Hydrological Impacts of Myanmar
in 2010 and 2011

Presented
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Tokyo

Objectives of DMH

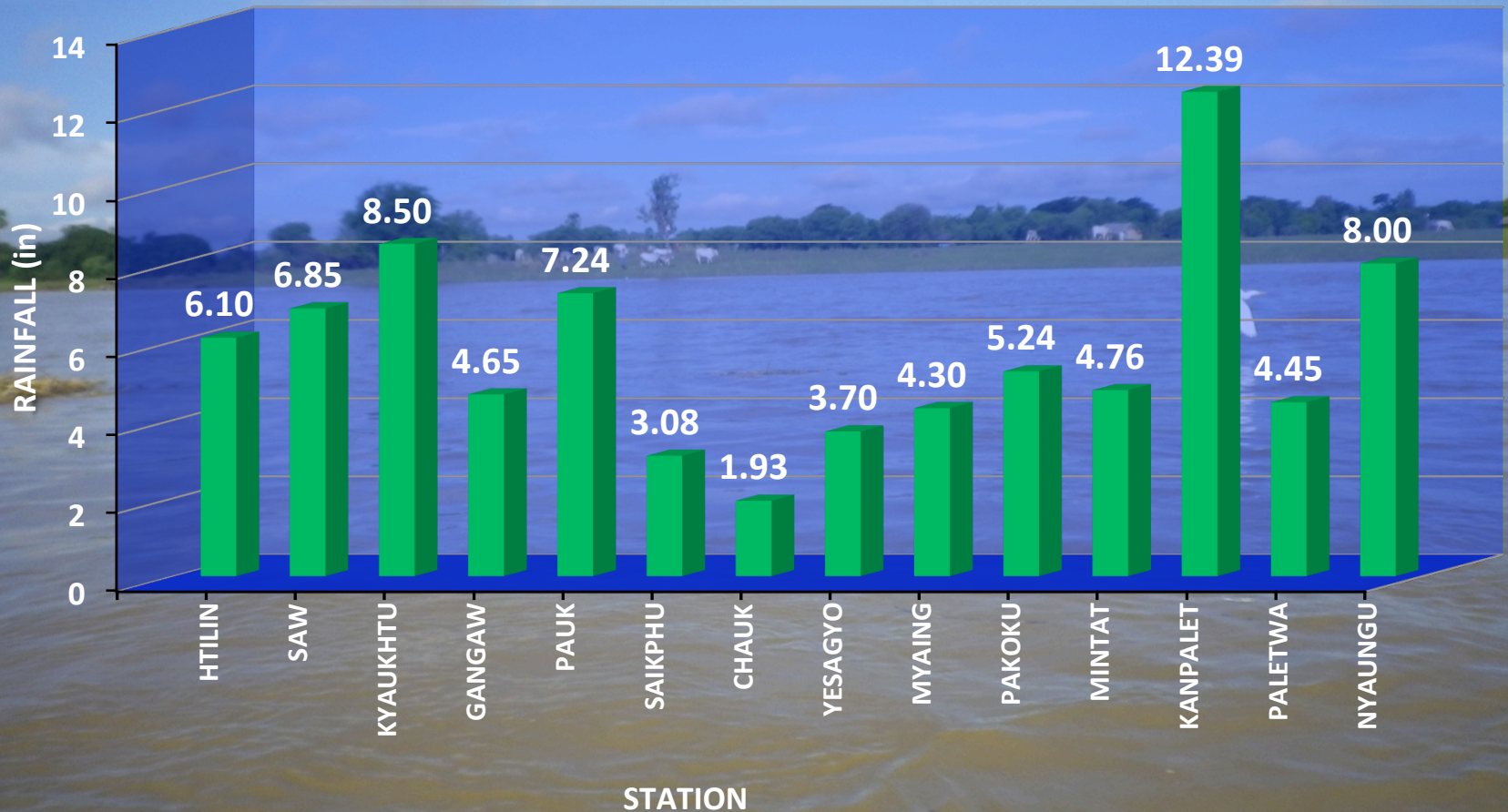
- 1. To exchange Information with other centers on Weather , Water and Earthquakes.**
- 2. To safeguard the people from losing their lives and property by issuing the Early Warnings and Bulletins for all Weather, Water and Geological related hazards.**
- 3. To expand the Public Awareness and Education programmes on Natural Disasters, Natural Hazards and Environmental Issues.**
- 4. To monitor on Climate Change, underground water resources, air and water quality of Myanmar.**
- 5. To assist to all authorities from Transport,Health,Agriculture, Construction and tourism by providing weather , hydrological and Seismological information.**
- 6. To assist in all National projects.**

Causes of Shwechaung Flash Flood

The causes of Shwechaung flash flood on 20th October 2011 are as following:-

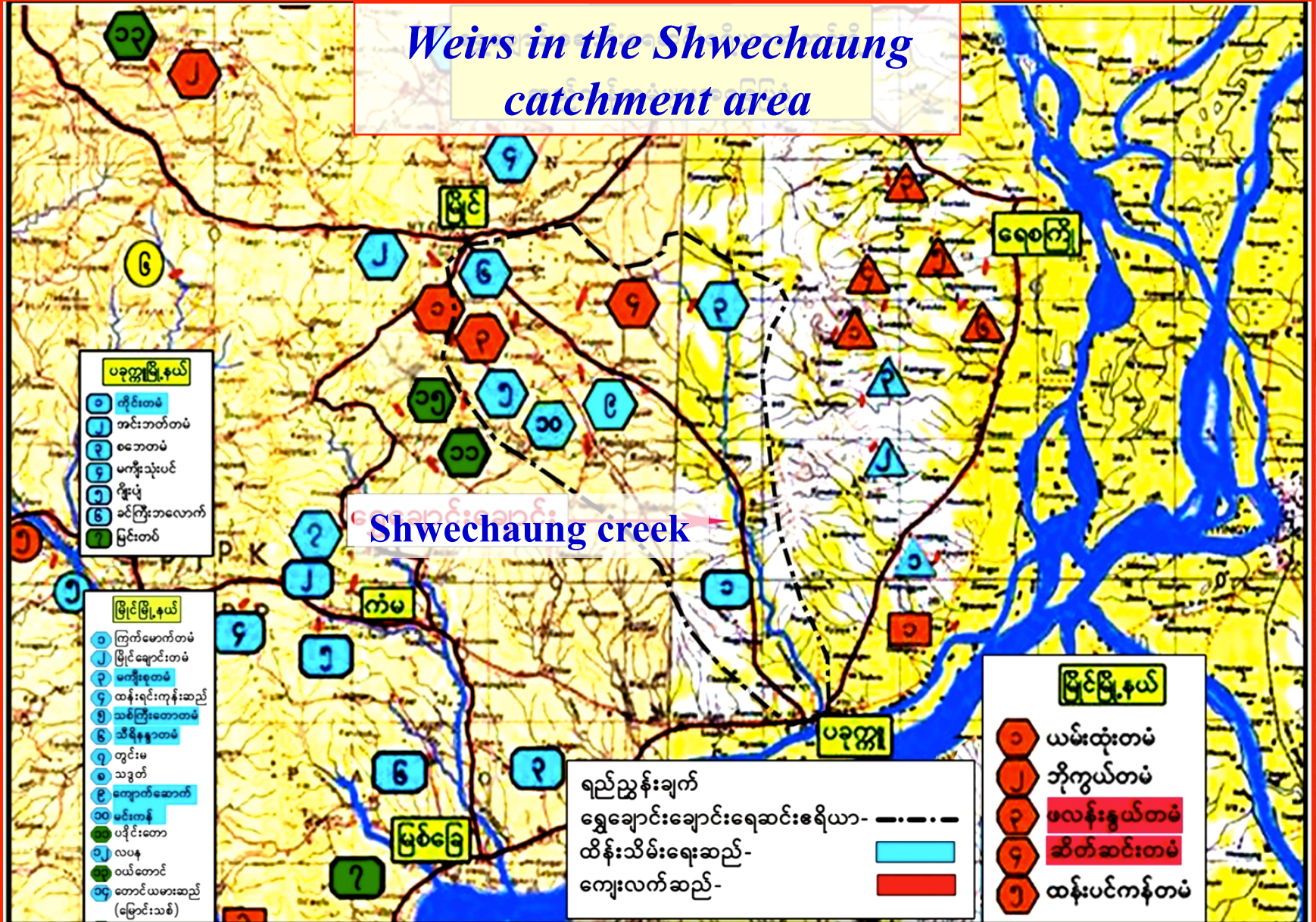
- **The effect of heavy rainfall**
- **Soil erosion**
- **Topography**
- **Channel storage capacity and**
- **Bank erosion**

*MAXIMUM RAINFALL OF THE STATIONS IN THE SHWECHAUNG
CATCHMENT AREA
DURING THE PERIOD OF FLASH FLOOD OCCURRANCE (20-10-2011)*



■ Rainfall(in)

Weirs in the Shwechaung catchment area



ရွှေချောင်းချောင်း
Shwechaung creek

- ပခုက္ကူမြို့နယ်**
- ၁ ကိုင်းတမံ
 - ၂ ဘင်းဘတ်တမံ
 - ၃ စောတမံ
 - ၄ မကွီးသုံးပင်
 - ၅ ဂျိုးပျံ
 - ၆ ခင်ကြီးဘလောက်
 - ၇ မြင်းတပ်

- မြိုင်မြို့နယ်**
- ၁ ကြက်မောက်တမံ
 - ၂ မြိုင်ချောင်းတမံ
 - ၃ မတီးရတမံ
 - ၄ ထန်းရင်းကုန်းဆည်
 - ၅ သစ်ကြီးတောတမံ
 - ၆ သီရိနန္ဒာတမံ
 - ၇ တွင်းမ
 - ၈ သဒ္ဒတံ
 - ၉ တွောက်ဆောက်
 - ၁၀ မင်းကန်
 - ၁၁ ပဒိုင်းတော
 - ၁၂ လပန
 - ၁၃ ဝယ်တောင်
 - ၁၄ တောင်ယမားဆည် (မြောင်းသစ်)

- ရည်ညွှန်းချက်
- ရွှေချောင်းချောင်းရေဆင်းဧရိယာ- - - - -
 - ထိန်းသိမ်းရေးဆည်- [Light Blue Box]
 - ကျေးလက်ဆည်- [Red Box]

- မြိုင်မြို့နယ်**
- ၁ ယမ်းထုံးတမံ
 - ၂ ဘိုက္ကယ်တမံ
 - ၃ ဖလန်းနွယ်တမံ
 - ၄ ဆိတ်ဆင်းတမံ
 - ၅ ထန်းပင်ကန်တမံ

Flash Flood

• No. of affected village-tract	=	217
• No. of Kwin	=	365
• No. of farmers	=	6805
• Acre affected	=	8376
• Acre destroyed	=	3253
– Flood	=	1840
– Sand covered	=	752
– Eroded	=	661

Shwechaung Flash Flood at Pakokku (20-10-2011)



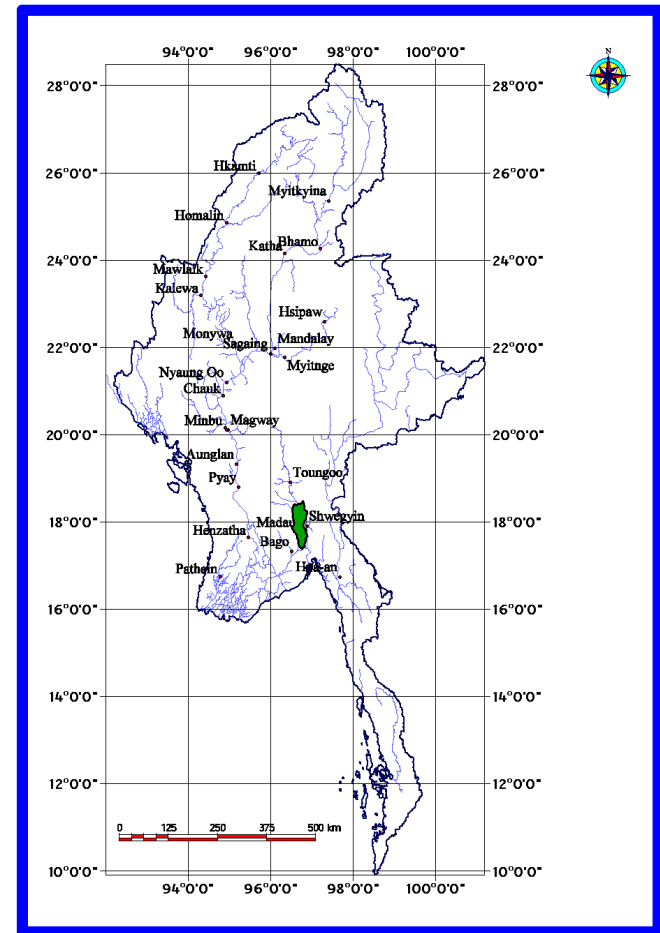
Damages caused by heavy Rainfall at Nyaung U and Bagan (20.10.2011)



DP(Shwegyin Basin) in Myanmar

- Shwegyin township in Bago division is geographically located between $17^{\circ} 44'$ to $18^{\circ} 14'$ N and $96^{\circ} 44'$ to $97^{\circ} 14'$ E.
- It stretches for about 42 miles from North to South and 19 miles from east to west
- Outlet of the Shwegyin catchment is located at $17^{\circ} 55'$ N and $96^{\circ} 52'$ E and Shwegyin town is situated on the mouth of shwegyin river
- Shwegyin catchment is about 1697.9 km²
- Topography of the basin is varying from 10 m to 1827 m above m.s.l
- The high mountains are formed in northern and eastern part with plain areas in western and southern part of the basin.
- There are 5 rivers which flowing through the township including shwegyin river.
- There is one Met and Hydro station (rf, wl, ds, sediment ds, wt, evp., wind speed/ direction, RH)

Hydrological Forecasting Stations



Pilot project Benefits

- **According to do this DP project of Myanmar, the some research works and capacity buildings were done to upgrade the flood forecasting system for the basin**
- **Impacts of Climate change and also Elnino and Lanina events on this basin will be analyzed. Climate change assessment and adaptation in this basin will also be studied.**
- **Cooperate and contribute to the next stage of AWCI.**



THANKS FOR YOUR KIND ATTENTION

<http://www.moezala.gov.mm>